

Amendments to the Specification:

Please replace the paragraph beginning at page 4, line 10 as follows:

Since the segment B is shorter than segment A, the volume expansion in segment B is more than the volume expansion in segment A. Since the same volume has been added to segments A and B, the cross-sectional radius ( $R_a$ ) of segment A will be ~~larger~~ smaller than the corresponding radius ( $R_b$ ) for segment B. The pressure inside each of these elastic containers varies with the inverse of the cross-sectional radius of the curvature of the elastic tubes, by virtue of the Laplace-Young law of elasticity,

$$P = 2\sigma/R$$

here  $P$  is the pressure,  $s$  is the surface stress and  $R$  is the cross-sectional radius of curvature.

Please amend the paragraph beginning at page 5, line 1 as follows:

Therefore, liquid inside segment B A will actually experience more pressure from the contracting force of the elastic tube wall. While this effect is counterintuitive, it is

often experienced when blowing up a balloon. The beginning portions of blowing up the balloon are much more difficult than the ending portions. The same effect occurs in the asymmetric tube. The pressure in segment B A will actually be larger than the pressure in segment A B.

Please amend the paragraph beginning at page 5, line 9 as follows:

If the constriction of segment P is removed rapidly, before the pressures in segment A and B equalize with the total system pressure, then the liquid in the high pressure section B A will flow toward the low pressure segment A B. Hence, liquid flows from segment B A towards segment A B in order to equalize pressure. This creates a pumping effect shown by the arrow y in Figure 1.